

REMARKS

Claims 1, 3, 5-8, 13, 14, 16, 33, and 36-40 are pending, with claims 2, 4, 9-12, 15, and 35 and previously withdrawn claims 17-32 and 34 being cancelled without prejudice.

Applicant reserves the right to pursue the subject matter of the withdrawn claims in a divisional application. Of the presently pending claims, claims 1 and 33 are currently amended, claims 5-8 and 13 are currently withdrawn from consideration, and claims 38-40 are new. The withdrawn claims depend from claim 1 and would be allowable upon allowance thereof. Support for the new claims can be found throughout the specification and at least at paragraphs [0010] and [0018], for example.

Examiner continues to maintain her rejections of the previously pending claims over Collier U.S. Patent No. 5,487,936 ("Collier"), Lovingood U.S. Patent Application Publication No. 2003/0190853 ("Lovingwood"), Standard Textile's Heiman U.S. Patent No. 5,495,874 ("Heiman"), and the 7th edition of Fairchild's Dictionary of Textiles ("the Fairchild dictionary"). In addition, Examiner now newly rejects the claims over Love III U.S. Patent Application Publication No. 2004/0229538 ("Love") and also alleges, based on 35 U.S.C. §112, 1st paragraph, that Applicant's use of " $x \neq y$ " in independent claim 1 is not supported in the application. While Applicant does not agree with the rejections, in order to streamline prosecution and to move this case to conclusion, Applicant has further amended the only two independent claims, namely claims 1 and 33.

Independent claim 1 has been amended in three ways. First, the weave pattern of the woven fabric sheeting has been further defined as "a weave pattern which includes a plurality

of warp yarn floats repeating along substantially the length of respective ones of the warp yarns in an x/y float pattern" [underlining for emphasis]. Support for the amendment can be found throughout the specification and at least at paragraphs [0009] and [0018], for example.¹ Second, the x/y float pattern of the warp yarn now recites "wherein each of x and y are whole numbers greater than zero (0), x is at least two (2), and x is greater than y" [underlining for emphasis].² The foregoing is taken from now-cancelled claim 35. Third, the woven fabric sheeting has been further defined to call for "at least one of the warp yarns being a spun yarn of natural fibers" [underlining for emphasis]. Support for that amendment can be found throughout the specification and at least at paragraphs [0010] and [0018], for example.³

Independent claim 33 can be viewed for present purposes as a claim depending from claim 1, wherein $x = 2$ and $y = 1$.⁴ Accordingly, the remarks herein will focus on independent claim 1 (with specific mention of claim 33 where thought to be useful), but without waiver or right to present additional arguments, including as directed to one or more of the dependent claims should that become necessary.

¹ Claim 33 has been similarly amended.

² Claim 33 calls for a 2/1 weave pattern which, for present purposes, could be treated as if claim 33 were a dependent claim depending from claim 1 and reciting $x = 2$ and $y = 1$. In that same regard, dependent claims 36 and 37 specifically define the x/y float pattern of claim 1 as $x = 3$ and $y = 1$ (claim 36), and $x = 4$ and $y = 1$ (claim 37).

³ Claim 33 has been similarly amended.

⁴ Claim 33 is presented in independent form as it represents a particularly advantageous embodiment of the invention as disclosed and so it is believed appropriate to leave it in independent form rather than making it a dependent claim.

Turning first to the §112 rejection, Applicant has replaced the use of "x ≠ y" in independent claim 1 with "x is greater than y" to positively, rather than negatively, claim Applicant's specific float pattern. That language is taken from now cancelled claim 35, which claim was not rejected by Examiner under §112. In view thereof, the §112 rejection is submitted to be moot.

Turning now to the substantive rejections, Examiner was of the view that claim 1 (and 33) prior to amendment was anticipated by Love and that claim 1 (and 33) was obvious over either Collier and Lovingood or Heiman and the Fairchild dictionary (the latter also being asserted as the basis for an obviousness-type double patenting rejection). All of the rejections are submitted to be in error and, in any event, overcome by the claims as presently amended.

With respect to the anticipation rejection based on Love, Examiner certainly appreciates that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Claim 1 (and 33) again now calls for at least one warp yarn to be a spun yarn of natural fibers" [underlining for emphasis]. Love fails to disclose at least that feature and thus the anticipation rejection can no longer stand and should be withdrawn in any event.

Specifically, with respect to Love, this reference is directed to woven stretch fabric which includes at least about 50% or greater of a synthetic fiber component, in order that it will retain its memory after a heat setting process. Those fabrics can be made from synthetic fibers, blends of two or more types of synthetic fibers, or blends of synthetic fibers and natural

fibers; and the yarns can be made of spun or filament yarns. *See* abstract, paragraph 0014, and the Examples. Examiner recognizes the aforementioned as clearly evidenced in paragraph 11 of the Official Action. To that end, there is no teaching (or suggestion) in Love of a woven fabric having a spun yarn (let alone a spun warp yarn) made solely of natural fibers. Rather, Love, at best, discloses a spun yarn that is a blend of natural and synthetic fibers. Since claim 1 (and 33) has been amended to recite that at least one warp yarn is a spun yarn of natural fibers, it is respectfully submitted that the anticipation rejection based on Love has been overcome and should be withdrawn.

Turning now to the obviousness rejections based both on either Collier and Lovingood or Heiman and the Fairchild dictionary (and the obviousness-type double patenting rejection based on the latter), Applicant first refers Examiner to the previous response dated August 17, 2006, which addressed those rejections in their entirety of which we incorporate herein by reference. Applicant further takes-up those same rejections below, in order.

Concerning the Collier and Lovingood rejection, Examiner already acknowledges that Collier fails to teach using a 2x1, 3x1, or 4x1 twill structure, which are species of the genus covered by claim 1. *See* Official Action, paragraph 14. Indeed, Collier is directed to coloring woven fabric to exhibit a shot silk effect that is preferentially achieved by a 1x1 plain square weave in combination with a substantially even density of the warp and weft threads. Other typical ground weaves other than the 1x1 plain square weave can be used, for example, a 2x2 twill weave, such that each thread in these constructions shows equally and the cloth would present the same appearance on each side. *See* col. 4, lines 11-14; and Figs 1 and 2.

In view of a lack of teaching in Collier, Examiner resorts to Lovingood for its 2x1 float pattern. In doing so, Examiner asserts that it "would have been obvious to one having ordinary skill in the art to use a 2x1 or 3x1 twill structure as disclosed by Lovingood, to produce a different visual effect in the fabric of Collier since Collier discloses that different weave patterns can be used to create different designs in the fabric." Examiner further alleges that "it would have been obvious to one having ordinary skill in the art to choose a 2x1, 3x1, or 4x1 twill weave pattern, since it has been held to be within the general skill of a worker in the art to select a known material (i.e., weave pattern)⁵ on the basis of its suitability for the intended use as a matter of obvious design choice." *See* Official Action, paragraph 8. Applicant respectfully disagrees.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). There is clearly no such suggestion of the desirability of the combination for the reasons that follow.

By way of background, Applicant's woven fabric sheeting construction includes warp yarn floats which repeat along substantially the length of respective warp yarns in a defined float pattern (e.g., 2/1, 3/1, or 4/1 float patterns) and a synthetic multifilament yarn in the filling to provide a woven fabric sheeting with improved levels of comfort and durability. The

⁵ It is not correct for Examiner to assert that one having ordinary skill in the art would choose a specified weave pattern on the basis of its suitability for the intended use as a matter of obvious design choice because a weave pattern is not a known "material". Regardless, Applicant submits that a rejection based on only the specific selection of a 2x1, 3x1, or 4x1 twill weave pattern, without more, could only be made via impermissible hindsight reconstruction.

construction of the woven fabric brings a greater proportion of the floated yarns (i.e., the floated warp yarn) to the surface of the sheeting that tends to increase surface tactile comfort. Thus, the floated warp yarns, of which at least one being a spun yarn of natural fibers, may be said to be "comfort yarn". At the same time, the synthetic filament yarn enhances the durability of the sheeting. In addition, the construction provides differentially elevated and/or depressed areas or designs on the surface of the sheeting, which may create pathways or channels for increased airflow through and/or across the sheeting. This feature not only enhances comfort, but also is believed to have a positive impact on skin care. *See e.g.*, paragraphs [0007], [0009], [0019], and [0020].

Collier, on the other hand, is directed merely to the coloring of woven fabric, such fabric having specific ground weave constructions, e.g., 1x1 plain square weave or 2x2 twill weave, to show equally so that the cloth presents the same appearance, when dyed, on each side. In stark contrast, the weave of Applicant's warp yarn float expressly avoids an $x = y$ float pattern that Collier finds necessary to bring out the color evenly. Despite that clear teaching, Examiner, in a vain effort to find a motivation to replace the even float patterns of Collier, maintains a heavy reliance on the Collier statement that "the cloth may be patterned at intervals by the use of a jacquard or dobby to introduce variations from this ground." *See* col. 4, lines 15-17. Since that generic sentence is nothing more than an indication that one may, if desired, incorporate into the fabric, at intervals, other various unspecified patterns besides the 1x1 plain square weave or 2x2 twill weave, Examiner resorts to the Lovingood reference in an effort to substitute a 2x1 twill

weave pattern for the even weave pattern of Collier. The conclusions drawn by Examiner are an over reaching of the actual teachings of the reference.

In the first instance, Lovingood clearly explains that its fabric product and the woven fabric product of Collier are "substantially different". See paragraph [0008]. There is a fundamental flaw in concluding that there is a motivation to combine references when one of these on its face states that its product is substantially different from that of the other. Further, Lovingood specifically discloses a chambray, or woven, fabric that uses only cellulosic yarns, i.e., natural yarns, for the filling, e.g., 100% cotton or other cellulosic fiber. See, e.g., paragraphs [0007], [0013], [0016], and [0025], Examples 1-6, and Figs. 1 and 2 thereof. By contrast, Applicant's claims call for at least one of the filling yarns to be a synthetic multifilament yarn. If one were to engraft Lovingood into Collier, it is submitted that they would also engraft the 100% natural filling yarns, thus moving away from Applicant's invention. Again, there can be no motivation to combine the references.

The foregoing notwithstanding, taking the Lovingood 2x1 twill weave pattern into the woven fabric of Collier, would still not result in the claimed invention. In that regard, Examiner relies on Collier to submit that the cloth may be patterned, at intervals, to introduce variations from the ground and concludes that the Lovingood 2x1 pattern could be one of those variations. Even were that to be done, the result would be introduction thereof at some intervals. The result would not be a warp float pattern that repeats along substantially the length of any warp yarn. Rather the warp float pattern would change at sporadic, and ill-defined "intervals", therealong. That is not the invention here-claimed.

The present invention requires a weave pattern that includes a plurality of $x > y$ warp yarn floats (such as 2/1) repeating along substantially the length of respective ones of the warp yarns. To obtain Applicant's claimed woven fabric, the specific ground weave constructions of Collier, e.g., 1x1 plain square weave or 2x2 twill weave, would need to be wholly replaced by the 2x1 twill weave pattern of Lovingood. That is directly at odds with Collier as it would destroy the shot silk effect that is achieved by an even weave pattern. Accordingly, Applicant submits that it would be inconsistent with, and even contrary to, the teachings of Collier to use a plurality of 2/1 warp yarn floats repeating along substantially the length of respective ones of the warp yarns as claimed herein.

For the reasons above, it is respectfully submitted that the combination of Collier and Lovingood does not render obvious the invention of Applicant's independent claims 1 and 33, nor any of the dependent claims.

With respect to Heiman and the Fairchild dictionary rejections, Examiner recognizes that Heiman, like Collier, fails to teach a weave pattern using warp yarn floats where x is greater than y . Indeed, Heiman expressly discloses a plain weave and does not make mention of any other possible pattern. Heiman's construction works and there was no need or basis to look at altering the disclosure. Nevertheless, without reason and, indeed as if at random, Examiner turns to the Fairchild dictionary for its generic mention that twill weaves are commonly known woven fabric structures used to produce strong, durable fabrics with the smallest twill being a 2/1 twill. In combining the references, Examiner asserts that it "would have been obvious to one having ordinary skill in the art to substitute a known twill weave

structure for the plain weave structure disclosed by Heiman" and further that "it would have been obvious to . . . choose a 2x1, 3x1, or 4x1 twill weave pattern, since it has been held to be within the general skill of a worker in the art to select a known material (i.e., weave pattern)⁶ on the basis of its suitability for the intended use as a matter of obvious design choice". *See* Official Action, paragraph 15. Applicants respectfully submit that Examiner effectively mischaracterizes the scope of the disclosure of Heiman, and at the same time, places undue weight on the Fairchild dictionary.

Heiman is specifically discussed in Applicant's specification, where it is explained that it teaches a woven fabric having a plain weave construction that combines the comfort features of cotton fabrics with the durability advantages of polyester fabrics. *See, e.g.*, abstract, col. 3, lines 51-65, and col. 4, lines 3-33. In addition, there is not a single mention of float patterns, let alone warp float patterns, or of "twill" anywhere in Heiman. Thus, there is nothing in Heiman that suggests it is applicable to weave constructions of the type involved here. Nor does the mere mention in the Fairchild dictionary of a 2/1 twill weave add anything of value, for that has nothing to do with the plain weave construction of Heiman.

And, although there is a general mention of a 2/1 twill weave in the Fairchild dictionary as indicated by Examiner, Examiner fails to mention that same twill weave definition clearly states that "one of the most popular weaves . . . [is] even sided twill, two up, two down [2/2]". Thus, even assuming one might be seeking to modify Heiman, how can it be that one would choose a 2x1 twill weave (or 3x1 or 4x1 for that matter) over the more common 2x2 twill

⁶ This is an erroneous statement by Examiner. *See* footnote 5.

weave for modifying the plain weave of Heiman? The answer is clear: one would not but for the knowledge gleaned from Applicant's own disclosure. Such hindsight reconstruction is impermissible and fatal to a §103 rejection. *See W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) ("It is difficult but necessary that the decisionmaker forget what he or she has been taught . . . about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art."); MPEP §2145.⁷

In view of the above, the obviousness rejection over Heiman and the Fairchild dictionary is submitted to be in error and should be withdrawn.

Concerning the double patenting rejection, the Examiner again generally regurgitates the obviousness arguments and re-labels them as an obviousness-type double patenting rejection. However, such non-statutory obviousness-type patenting rejection is submitted to be inappropriate as a matter of law under the circumstances here. Specifically, a double patenting rejection "over a patent should only be given if the patent issued less than a year before the filing date of the application. If the patent is more than a year older than the application, the patent is considered to be "prior art" which may be applied in a rejection under 35 U.S.C. 102(b)/103(a)". MPEP § 1504.06. Since Heiman is available as prior art under

⁷ Even at best, the Examiner's notion that a skilled artisan would modify the fabric of Heiman to a 2/1 twill pattern based on the Fairchild dictionary definition of twill weave because it would have been obvious to one having ordinary skill in the art to substitute a known twill weave structure for the plain weave structure disclosed by Heiman is nothing more than the oft overused "obvious to try" rationale. And, that is not permissible either. *In re Deuel*, 34 USPQ2d 1210, 1216 (Fed. Cir. 1995) (stating that "Obvious to try" has long been held not to constitute obviousness).

102(b)/103(a), Applicant submits that there is no legal basis for application of the double patenting rejection.

Even assuming *arguendo* that the obviousness-type double patenting rejection is appropriate, this type of rejection is "analogous to [a failure to meet] the nonobviousness requirement of 35 U.S.C. 103". *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967). The analysis employed for an obviousness-type double patenting rejection parallels that of a section 103 obviousness determination. *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). To that end, the Examiner's obviousness-type double patenting rejection is equally as factually flawed as Examiner's obvious rejection for the reasons stated above. Thus, it is submitted that Applicant's woven fabric sheeting, with its plurality of warp yarn floats repeating along substantially the length of respective ones of the warp yarns in the claimed $x > y$ float pattern, is not an obvious variation of any of claims 1-21 of the Heiman patent. More specifically, as explained above, the disclosure of Heiman involves a 1x1 plain weave, and thus, does not teach the float pattern as presently claimed, nor would it have been obvious to modify Heiman to achieve the claimed invention. For purposes of the double patenting rejection, Examiner must focus on the claims of Heiman, but it is submitted that the result is no different.

Even assuming for sake of argument that the claims of Heiman are not limited to a 1x1 plain weave, it is submitted that an analogy can be by reference to a genus-species situation. In that context, the claims of Heiman might be viewed as a genus (any float pattern), whereas Applicant's claimed woven fabric sheeting might be viewed as a subgenus or species (specific

relation of float pattern with $x > y$). Where a later claim is directed to a species, and the Examiner is relying on an earlier disclosure (here, claims) to a genus, Examiner still must show motivation to modify the genus, i.e., Heiman's woven fabric sheeting, to make the subgenus or species, i.e., Applicant's woven fabric sheeting with its specific $x > y$ float pattern construction. *See, e.g., In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996). The mere fact that a reference is found that relates to a float pattern that matches the species but without regard to other aspects of the invention, does not itself provide such motivation. *See, e.g., In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). If the mere mention in the art of such elements were sufficient, nothing could be patentable once the genus is known. That is clearly not the law.

For the reasons above, it is, thus, submitted that the obviousness-type double patenting rejection over Heiman and the Fairchild dictionary should also be withdrawn.

Conclusion

As a result of the remarks given herein, Applicant submits that the rejections of the pending claims have been overcome. Therefore, Applicant respectfully submits that this case is in condition for allowance and requests allowance of the pending claims.

If Examiner believes any detailed language of the claims requires further discussion, Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. Applicant also has submitted all fees believed to be necessary

herewith. Should any additional fees or surcharges be deemed necessary, Examiner has authorization to charge fees or credit any overpayment to Deposit Account No. 23-3000.

Respectfully submitted
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